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DATE: August 11, 2006

TO: Cabinet Secretaries

FROM: Thomas Trimarco, Secretary
Executive Office for Administration and Finance

SUBJECT: A&F Bulletin 12- Establishment of Minimum Standards for Sustainable Design and Construction of New Buildings and Major Renovations by Executive Agencies

The Executive Office for Administration and Finance (A&F) has determined that, given the hundreds of millions of dollars spent each year to construct, renovate, manage and operate state buildings, and in keeping with the Administration's commitment to long-term cost containment, energy efficiency, improved public health and natural resource conservation, all new construction and major renovation projects for state buildings should meet minimum efficiency, sustainable design and construction standards. Effective September 1, 2006 all executive agencies shall follow the new sustainable design and construction standards outlined below for all new construction and major renovation projects. Major renovation projects are defined as those projects that include a complete overhaul of a significant portion of the original structure and where the cost of the renovation is greater than 50% of the assessed value of the building.

The standard below is designed to ensure that state buildings constructed and renovated in such a manner will result in buildings that are at least 20% more efficient than the current energy code, provide healthier indoor spaces for workers, residents, and visitors, use natural resources wisely, and reduce the overall long-term operating costs associated with heating, cooling, powering and generally managing the property. A higher up-front cost for a sustainability designed and constructed building shall not preclude its construction unless, after accounting for all incentives and rebates, such costs cannot be justified with a reasonable payback period of 10 years or less. Agencies shall work to utilize an integrated design and construction process that ensures that these goals are considered during each of the design and construction phases.

A&F recognizes that there may be special circumstances in which meeting certain standards listed below may not be feasible. In such cases, the agency must provide sufficient written documentation

to the Secretary for A&F that demonstrates that the specified standards cannot be achieved and describes the rationale for reaching such a conclusion. The Secretary for A&F reserves the right to reject such submissions and require the standard to be met in its entirety.

The applicability of the standards is to be determined by the constructing entity and project size. For more details on this standard and other related issues, agencies should refer to the report prepared by the Sustainable Design Roundtable, entitled: "Leading by Example: An Action Plan for Green Buildings in Massachusetts Construction Projects."

A. Minimum Standards for Large Projects

1. For projects **20,000 square feet or larger**, all executive agencies shall adhere to the newly created "Massachusetts LEED Plus" standard for new construction and major renovation projects that are designed for use by a public entity. LEED® stands for Leadership in Energy and Environmental Design, a building rating system developed and maintained by the U.S. Green Building Council. Massachusetts LEED Plus requires obtaining the basic U.S. Green Building Council's LEED certification and attainment of the following specific LEED credits that are referenced in LEED-NC Version 2.2:
 - a. Energy performance exceeding Massachusetts Energy Code requirements by at least 20 percent (*Energy & Atmosphere, Credit 1*).
 - b. Third party building commissioning (*Energy & Atmosphere, Credit 1, Credit 3*).
 - c. At least one of the four following Smart Growth criteria:
 - 1) Construct or renovate on a previously developed site (*Sustainable Sites, Credit 2*)
 - In a community with a minimum density of 60,000 square feet per acre
 - or -
 - Within one-half mile of ten basic services and a residential zone or neighborhood with an average density of ten units per acre; and with pedestrian access between buildings and services.
 - 2) Construct or renovate on a brownfields site (*Sustainable Sites, Credit 3*).
 - 3) Construct or renovate on a site with public transportation (train or bus) within one-half miles (*Sustainable Sites, Credit 4.1*).
 - 4) Maintain 75 percent of existing building structure and envelope (*Materials and Resources, Credit 1.1*).
 - d. Two irrigation and building water efficiency criteria:
 - 1) Reduce potable water consumption for irrigation by 50 percent (*Water Efficiency, Credit 1.1*).
 - 2) Incorporate strategies that will conserve 20 percent of building water use (2.2, *Water Efficiency, Credit 3.1*).

B. Minimum Standards for Small Projects

1. For projects **smaller than 20,000 square feet**, all executive agencies shall design and construct new buildings and major renovation projects to meet at least one of the following:
 - a. Adhere to the “Massachusetts LEED Plus” standard described above, or
 - b. Surpass the Massachusetts Energy Code requirements by at least 20 percent, or
 - c. Follow the prescriptive approach of the New Buildings Institute's Advanced Buildings Benchmark Tool. (*Benchmark* TM is a flexible system of specific criteria for technologies and practices that provide unique paths to achieving energy-efficient buildings).

C. Standards for Non-Executive Agency Construction

A&F recognizes that there are other non-executive branch agencies that construct, finance, and/or oversee a significant number of construction and renovation projects. A&F strongly encourages:

- Other agencies to meet the standards outlined in sections A and B, and
- The Massachusetts School Building Authority (MSBA) to adopt, to the greatest extent feasible, minimum building standards contained in the Massachusetts Collaborative for High Performance Schools (MA CHPS) for new K-12 schools and encourage school districts to attain higher levels of compliance beyond the minimum standards.

D. Implementation

When implementing the design and construction standards contained in this Bulletin, agencies shall:

- Strive to provide sufficient education and training on these standards and related information to agency personnel and to private sector personnel involved in state projects.
- Ensure that all available funding, incentives, rebates and any other assistance are identified and utilized in the project.